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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/816,485	04/01/2004	Yoshihiro Tomita	10873.1433US01	1214

53148 7590 01/29/2007
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EXAMINER

PATEL, ISHWARBHAI B

ART UNIT	PAPER NUMBER
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2841

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/29/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/816,485	TOMITA ET AL.	
	Examiner	Art Unit	
	Ishwar (I. B.) Patel	2841	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 8-24 is/are pending in the application.
- 4a) Of the above claim(s) 8-24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 April 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on December 14, 2006 has been entered.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings (elected specie read on figure 6A) must show every feature of the invention specified in the claims. Therefore, the shield layer (and ground layer if both are same) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate

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changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The disclosure is objected to because of the following:

In the description of the elected specie of figure 6A, nothing is described about the ground layer or the shield layer.

The specification must include a written description of the invention or discovery and of the manner and process of making and using the same, and is required to be in such full, clear, concise, and exact terms as to enable any person skilled in the art or science to which the invention or discovery appertains, or with which it is most nearly connected, to make and use the same, (see 37CFR, 1.71 (a)), and the claim or claims must conform to the invention as set forth in the remainder of the specification and the terms and phrases used in the claims must find clear support or antecedent basis in the description so that the meaning of the terms in the claims may be ascertainable by reference to the description (see 37 CFR, 1.75 (d)).

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1: The amended claim with the limitations "other than ground layers" and "a pair of shield layers that sandwiches one of the conductive layers in a lamination direction" is unclear. The structure of the ground layer in the claim is not clear. Also, it is not clear whether the element recited as ground layer and the element recited as the shield layers are the same elements. If same, consistent nomenclature should be used throughout the claims for the same element.

Claims 2 and 3 depend upon claim 1 and inherit the same deficiency.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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7. Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Argyrakis (US Patent No. 5,573,109).

Regarding claim 1, Argyrakis, in figure 1, discloses a wiring board, comprising: a plurality of conductive layers (12, 14, 16) other than ground layers, each conductive layer including no more than one wiring for transmitting signals (one wiring comprising signal carrying conductors, column 2, line 35-37); a plurality of insulation layers (26, 27, 28, 29, 30) for insulating the respective conductive layers; and a pair of shield layers that sandwiches one of the conductive layers in a lamination direction (18 and 22 sandwiches the conductive layer 12), wherein the conductive layers and the insulation layers are laminated alternately (see figure), and each of the plurality of conductive layers is provided with a terminal at least one of first and second ends (terminals at the ends of the wiring of the conductive layer, see figure) of the conductive layers, wherein the terminals are formed stepwise and separated by the insulation layers in a cross-sectional shape of a lamination structure of the conductive layers and the insulation layers (see figure), and each of the conductive layers has a same width as a width of the insulation layer immediately underneath thereof (each of the conductive layers forming the wirings has the same width as a width of the insulation layer immediately underneath (see figure).

Regarding claim 2, Argyrakis discloses all the features of the claimed invention as applied to claim 1 above. The conductive layers and the insulation layers are formed in an atmosphere at a reduced pressure below the atmospheric pressure is a process

limitation in a product claim. Such a process limitation defines the claimed invention over the prior art to the degree that it defines the product itself. A process limitation cannot serve to patentably distinguish the product over the prior art, in the case that the product is same as, or obvious over the prior art. See Product-by-Process in MPEP § 2113 and 2173.05(p) and *In re Thorpe*, 777 F.2d 695, 227 USPQ 964, 966 (Fed. Cir. 1985). This is a structural claim. Argyrakis discloses the structure. Therefore, Argyrakis meets the limitation.

Regarding claim 3, Argyrakis further discloses the plurality of conductive layers are three thin film conductive layers (12, 14, 16).

8. Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Holbert (US Patent No. 4,450,029).

Regarding claim 1, Holbert, in figure 1, discloses a wiring board, comprising: a plurality of conductive layers (10b, 10c, 10e) other than ground layers, each conductive layer including no more than one wiring (entire plane is conductive); a plurality of insulation layers (12bc, 12cd, 12de, 12fg, 12gh) for insulating the respective conductive layers; and a pair of shield layers (10d, 10f) that sandwiches one of the conductive layers (10e) in a lamination direction, wherein the conductive layers and the insulation layers are laminated alternately (see figure), and each of the plurality of conductive layers is provided with a terminal at least one of first and second ends (see figure) of the conductive layers, wherein the terminals are formed stepwise and separated by the

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insulation layers in a cross-sectional shape of a lamination structure of the conductive layers and the insulation layers (17b, 17c, 17e, see figure), and each of the conductive layers has a same width as a width of the insulation layer immediately underneath thereof (see figure).

Regarding the recitation "for transmitting signals", require the structure (the conductive layer) to be capable of transmitting a signal and is not a positive limitation but require the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchison*, 69 USPQ 138. The conductive layer of Holbert is capable of transmitting a signal. Therefore, Holbert meets the limitation.

Regarding claim 2, Holbert discloses all the features of the claimed invention as applied to claim 1 above. The conductive layers and the insulation layers are formed in an atmosphere at a reduced pressure below the atmospheric pressure is a process limitation in a product claim. Such a process limitation defines the claimed invention over the prior art to the degree that it defines the product itself. A process limitation cannot serve to patentably distinguish the product over the prior art, in the case that the product is same as, or obvious over the prior art. See Product-by-Process in MPEP § 2113 and 2173.05(p) and *In re Thorpe*, 777 F.2d 695, 227 USPQ 964, 966 (Fed. Cir. 1985). This is a structural claim. Holbert discloses the structure. Therefore, Holbert meets the limitation.

Regarding claim 3, Holbert further discloses the plurality of conductive layers are three thin film conductive layers (10b, 10c, 10e, column 2, line 47).

Response to Arguments

9. Applicant's arguments with respect to claims 1-3 have been considered but are moot in view of the new explanation / new ground(s) of rejection.

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Okubo (US Patent No. 6,512,181) in figure 2, discloses conductive layers (4 and 5) transmitting signal with layer 4 sandwiched between layers 8 and 12 and 5th layer sandwiched between layer 8 and 9.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ishwar (I. B.) Patel whose telephone number is (571) 272 1933. The examiner can normally be reached on M-F (8:30 - 5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on (571) 272 1984. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ibp
January 22, 2007


Ishwar (I. B.) Patel
Primary Examiner